

BROOKHAVEN NATIONAL LABORATORY ESH Directorate SAFETY & HEALTH SERVICES DIVISION	NUMBER: HP65805
	REV. Final Rev0
	DATE: 03/26/08
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1.0 Purpose & Scope

This document describes the development and maintenance of the Safety and Health Services Division's (SHSD) **Integrated Safety Management (ISM)**, **Occupational Safety & Health-Occupational Health & Safety Assessment Series (OSH, OHSAS 18001)** and **Environmental Management System (EMS, ISO 14001)**. This program's purpose is to control risks and environmental impacts and to improve performance.

The procedure establishes a process to analyze the environmental safety and health (ESH) impacts of new and existing SHSD operations. The *ISM* program is used to facilitate worker input and target program improvements. To facilitate access by staff, the completed SHSD ISM documentations and records are stored on the [SHSD ISM/EMS/OSH web page](#).

SHSD ISM program is designed to assist in:

- Minimizing impact on the environment from SHSD operations by eliminating unnecessary operations that generate wastes/emissions and selecting less hazardous alternatives whenever possible.
- Minimizing health and safety risks from SHSD operations by eliminating unnecessary operations that expose workers to hazards and evaluating and implementing controls for risks.
- Maintaining training and awareness of the ISM program.

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2.0 Responsibilities

- 2.1 The SHSD Manager is responsible to assign staff to implement the ISM program within SHSD.
- 2.2 The SHSD staff members are responsible to:
- Complete training in the site ISM, OSH and EMS programs,
 - Read and understand the *SHSD Facility Risk Assessments* and *Job Risk Assessments* applicable to their work,
 - Read and understand the written SHSD Operation Environmental Evaluations (*SOEE*) applicable to their work,
 - Serve as a member on teams that analyze jobs and risks when requested, and
 - Conduct operations in accordance with this program.

3.0 Definitions

Facility Risk Assessment (FRA) and Job Risk Assessment (JRA): See [SBMS OHSAS 18001 Program](#).

SHSD Operation Environmental Evaluations (SOEE): a SHSD level written evaluation of operations conducted by SHSD to determine the degree of environmental impact caused by the operation. The SOEE defines controls to minimize the environmental impact to the greatest extent reasonably achievable. The SOEE specifies the appropriate waste stream, if applicable. The official version of the *SOEEs* are maintained on the [SHSD OHS/EMS/ISM Webpage](#).

4.0 Prerequisites

SHSD members must possess the qualifications and skills to perform SHSD operations safely before they attempt to do any operation.

5.0 Precautions

SHSD staff is not authorized to conduct any operation they are not appropriately qualified to do. SHSD staff is authorized to stop work on any operation they deem unsafe.

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6.0 Procedure: This SHSD ISM Program follows the format of the EMS/OHSAS management system elements:

- 6.1 **OH&S Policy (Clause 4.2):** The SHSD policy is the [BNL ESSH Policy](#). The policy is posted in Building 120.
- 6.2 **Planning for Hazard Identification, Risk Assessments and Risk Control Environmental Significant Aspects (Clause 4.3.1):**

OSH Hazards and Risks: The SHSD Manager or designee identifies operations that need to be reviewed in risk assessments and developed in SOPs. New operations and their risk assessments are added to a List of Job Risk Assessment (official copy kept on [SHSD ISM/EMS/OSH web page](#)).

Each building/area SHSD owns has a Facility Risk Assessment (official copy kept on the [SHSD ISM/EMS/OSH web page](#).)

Environmental Impacts: For those operation not covered in an ESH Directorate [Environmental Aspect](#) evaluation, the SHSD Manager or designee assigns a person to review the operation and determine actions that will be documented in a SHSD SOP or *Operation Environmental Evaluation*, if needed. The official copies are kept on the [SHSD ISM/EMS/OSH web page](#).

Continual Improvement: FRAs, JRAs, SOEEs and SOPs are developed or reviewed when incidents reveal the operation have not been adequately analyzed, a new hazard is introduced, and on a periodic basis. SHSD follows the site level policy on review cycle frequency for risk assessments.

- 6.3 **Legal and Other Requirements (Clause 4.3.2):** The SHSD has professionals that are SBMS Subject Matter Experts (SMEs). These SMEs conduct periodic reviews of appropriate regulatory requirements and consensus standards applicable to BNL OSH programs. When the SME determines that a new or revised requirement impacts an existing BNL OSH Program, the SME takes the necessary steps within the SBMS Record of Decision process.
- 6.4 **Objectives and EMS/OSH Management Programs (Clauses 4.3.3 & 4.3.4):** The SHSD Manager sets ISM goals for the division. The official copy is kept on the [SHSD ISM/EMS/OSH web page](#).

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SHSD sets individual performance goals for the SHSD SMEs. These goals pertain to the development and implementation of the site-wide program(s) and include periodic requirements management, program development and maintenance, conducting hazard evaluation and control, and assessing the program effectiveness, as applicable.

- 6.5 **Structure and Responsibility (Clause 4.4.1):** Each SHSD member has a Roles, Responsibilities, Accountabilities and Authorities (R2A2) document that serves as a description of performance expectations for the employee's role(s). The R2A2 is developed in accordance with the [SBMS Subject Area R2A2](#) and reviewed and signed by SHSD management and the staff member. The R2A2 is updated when elements of an employee's role change.

The [SHSD Organization Chart](#) is maintained in Building 120, Room 1-23 and an electronic version is maintained on the [SHSD Division Office Web Page](#).

- 6.6 **Training, Awareness, and Competence (Clause 4.4.2):** The SHSD uses the BNL *Brookhaven Training Management System (BTMS)* to define and track training requirements.

SHSD develops specialized training for hazardous operations or operations requiring special expertise to ensure a quality consultation. For these operations, a Job Performance Measure (JPM) or internal training class is developed. Status of qualification on the JPMs is tracked in *BTMS*. Procedure HP65100 describes the *SHSD Training and Qualification* procedure.

- 6.7 **Consultation & Communication (Clause 4.4.3):**

SHSD Consultation to line organization and management: SHSD professionals consult to line organizations on the recognition, evaluation, and control of occupational health hazards and risks. SHSD maintains guidelines and requirements in SOPs on topics including: calibration, sampling, meter operation, report content, employee exposure notification, conducting self-assessments, etc.

SHSD consultation and communication with SHSD workers and Employee Involvement:

- For SHSD operations and work areas, the SHSD Manager assigns individuals familiar with the process to review the work areas or operation and serve on a risk assessment team.

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- Consultation and communication within the SHSD includes all-hands SHSD meetings, staff meetings, emails on appropriate topics, the ESH Directorate Newsletter, Bulletin, and Monday memo. The SHSD has membership on [ESH Directorate Worker Occupational Safety and Health Committee](#).
- 6.8 **ISM Management System Documentation (Clause 4.4.4):** The SHSD Division's ISM management system is documented in this SOP, the ESH Directorate's ESM and OSH Management Systems programs. These documents contain the links to the management planning, recordkeeping, audit, and other elements of the ESH directorate and SHSD ISM program.
- 6.9 **Control of Documents and Records (Clause 4.4.5 and 4.5.3):** The SHSD maintains key records of hazard and exposure assessments and OSH Program development. The records include: exposure monitoring, calibration, chain of custody, employee notification, hazard assessment reports, design review, SBMS Subject Area development, training curriculum, program self-assessment and external assessments. Documents and records are controlled at the group and division level
- 6.10 **Operational Control (Clause 4.4.6):** SHSD operations that pose significant ESH risk are analyzed in Standard Operating Procedures. These SOPs may be generic in nature, such as IH96200 *Area Survey Principles (Noise)* or specific on the operation of a piece of equipment, such as IH96515 *Operation the Extech 407790 as an Octave Band Analyzer*. Electronic copies are posted in the [SHSD SOP and Controlled Document Web Page](#) to serve as the distribution method.
- 6.11 **Emergency Preparedness and Response (Clause 4.4.7):** The SHSD operates under the policies and procedure for emergencies set up in the [BNL Emergency Management Program](#). The IH Group Technical Specialists also participate in periodic SHSD Emergency Response drills and training sessions.
- 6.12 **Performance Measurement and Monitoring (Clause 4.5.1):**
- SHSD prepares and tracks status of Targets and Objectives goals.
 - SHSD participates in the assessment program detailed in the ESH Directorate's OSH and EMS programs.
 - SHSD professionals staff annual performance goals have a high degree of safety targets based on the nature of their responsibility set.
 - The IH and SE groups perform monitoring and measuring of OSH hazards for SHSD and line organization operations. Equipment used for monitoring and measuring is maintained according to SBMS Subject Areas [Calibration](#) and [Quality](#)

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Requirements. The IH Group maintains procedures in the series *IH50 to IH106* that documents measuring procedures and equipment calibration and maintenance in more detail.

6.13 **Accidents, Incidents, Nonconformances, and Corrective and Preventative Action (Clause 4.5.2):** After any incident, near miss, or change in controls for SHSD operations, if a risk assessment did not exist for the operation or the location involved, a FRA/JRA is developed to analyze the hazards and risks.

6.14 **EMS and OSH MS Audit (Clause 4.5.4):** SHSD participates in the BNL OSH and EMS assessment programs. During program self-assessments, the SHSD evaluates the status of the division's written program and its implementation within SHSD.

6.15 **Management Review (Clause 4.6):**

- SHSD provides information for the annual ESH Directorate OHS/EMS Management Review.
- The SHSD plays a key role in the BNL site OSH Management Review preparation and presentation.

6.16 **Continual Improvement:** This SOP and other SHSD ISM documents are reviewed on at least a 3 year cycle and updated as needed.

7.0 Implementation and Training: Qualification Criteria:

- 7.1 SHSD staff will take the site level ISM, OSH and EMS training.
- [Integrated Safety Management at BNL](#) (TQ-ISM)
 - [Reducing Injuries and Accidents in the Workplace](#) (TQ-SAFEAWARE) and
 - [Environmental Management System ISO 14001 Overview](#) (TQ-EMS-1).
- 7.2 The SHSD Manager, or delegate, provides instruction on the SHSD Division's ISM program. Training is documented on the JPM in Attachment 9.1
- 7.3 Workers learn the OHSAS risk assessment process by participation in risk assessment teams.

8.0 References

- 8.1 BSO18001 *Occupational Health & Safety Assessment Series Program (OHSAS)*.
8.2 ISO14001 *Environmental Management System (EMS)*.

The only official copy is on-line at the [SHSD SOP website](#).
Before using a printed copy, verify that it is current by checking the document issue date on the website.

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9.0 Attachments

9.1 Job Performance Measurement Certificate

10.0 Documentation

Document Development		
Reviewed By: (signature/date on file) R. Selvey, CIH 03/21/08 IH Group Leader	Reviewed By / Date: (signature/date on file) S. Kane, CSP 03/21/08 SE Group Leader	Approved By / Date: (signature/date on file) P. Williams, CSP 03/26/08 SHSD Manager
ESH Coordinator/ Date: none	Work Coordinator/ Date: none	Prepared By: M. Beckman; R. Selvey 02/12/08
QA Representative / Date: none	Training Coordinator / Date: (signature/date on file) S. Wiley 03/21/08	Filing Code: HP65
Facility Support Rep. / Date: none	Environ. Compliance Rep. / Date: (signature/date on file) A. Bou 03/21/08	Effective Date: 03/27/08
ISM Review - Hazard Categorization <input type="checkbox"/> High <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Low/Skill of the craft	Validation: <input type="checkbox"/> Formal Walkthrough <input type="checkbox"/> Step-by-step Desk Top Review <input type="checkbox"/> SME Review Name / Date:	IMPLEMENTATION: Training Completed: Tracked in BTMS Procedure posted on Web: 03/28/08 Hard Copy files updated: new Document Control: 03/26/08

Revision Log
Purpose: <input type="checkbox"/> Temporary Change <input type="checkbox"/> Change in Scope <input type="checkbox"/> Periodic review <input checked="" type="checkbox"/> Clarify/enhance procedural controls Changed resulting from: <input type="checkbox"/> Environmental impacts <input type="checkbox"/> Federal, State and/or Local requirements <input type="checkbox"/> Corrective/preventive actions to non-conformances <input type="checkbox"/> none of the above SME Reviewer/Date:

SHSD Integrated Safety Management Program Job Performance Measure (JPM) Completion Certificate

Candidate's Name:	Life Number:
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Demonstrates appropriate knowledge of the SHSD program described in HP65805				
Criteria	Qualifying Performance Standard	Unsat.	Recov.	Satisf.
1. OSH Policy	<ul style="list-style-type: none"> Describes to location of the policy. Describes the basic contents of the BNL ESSH policy and understands the importance of conformance to the ESSH policy regarding OSH and EMS consequences. 			
2. Legal Requirements	<ul style="list-style-type: none"> If the staff member's role includes program SME, understands the process of legal requirement surveillance and management. 			
3. Competency & training in R2A2 role	<ul style="list-style-type: none"> Understands the qualification criteria and the need to develop and maintain competency for the roles they fill. Describes the mechanisms to document qualification for the role(s) they fill. 			
4. Objectives	<ul style="list-style-type: none"> Knows the content of the current SHSD Objectives. Describes the staff member's role in the SHSD Objectives 			
5. Document and Records Control & Management	<ul style="list-style-type: none"> Describes the staff member's role in the Record/ Document file management. Describes the key elements of document/data control and ds management. 			
6. Operational Controls	<ul style="list-style-type: none"> Describes the process to identify and control risks. This includes familiarity with JRAs, FRAs, and SOPs. Knows how to access the current version of each. 			
7. Emergency roles	<ul style="list-style-type: none"> Describes the staff member's role during emergencies Assembly Areas and evacuation alarms Role and impact in services to other organizations, if applicable. 			

Part 2: Risk Assessment Process and ISM Program Documentation: Worker participated in at least one OHSAS risk assessment process team or reviewed a risk assessment with management to verify an understanding of the risk and control process. Reviewed applicable SOEE and the SHSD Objectives.			
JRA(s):	FRA(s):	Objectives:	SOEE:

I accept the responsibility for performing within this JPM and the corresponding ISM Program.

Candidate Signature:	Date:
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I certify the candidate has satisfactory knowledge of the ISM program.

Evaluator Signature:	Date:
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